

and for the purpose of establishing a filing date under 35 U.S.C. §102, Araki is not entitled to claim the filing date of the PCT application. In addition, Araki claims priority to applications JP2000-102799, JP2000-177494, and JP2001-061896. Again, according to MPEP §706.02(f)(1), and for the purpose of establishing a filing date under 35 U.S.C. §102, Araki is not entitled to claim the filing date of the Japanese applications. Araki is therefore prior art only as of its filing date, which is October 3, 2002. Since the instant application has a filing date of March 4, 2002, Araki is not available as prior art under any section of 35 U.S.C. §102. Accordingly, applicant requests withdrawal of the rejection.

Applicant notes, however, that PCT/JP01/02897 was published as WO 01/74916 on October 11, 2001. Also, the priority documents relied on by PCT/JP01/02897, i.e., applications JP2000-102799, JP2000-177494, and JP2001-061896 are available on the WIPO website, although it is not clear on what date they were published. PCT/JP01/02897 is therefore *prima facie* available as a reference under 35 U.S.C §102; the priority documents may also have published in time to be available as references; accordingly, applicant is submitting a supplemental IDS listing these publications.

Applicant further notes that Araki is a continuation-in-part of PCT/JP01/02897, and as a result, the disclosures of the two documents may differ. Indeed, the disclosures of Araki and JP2000-102799, JP2000-177494, and JP2001-061896 may also differ. However, *even if* the disclosures of PCT/JP01/02897, JP2000-102799, JP2000-177494, and/or JP2001-061896 are similar to Araki, none of these documents are sufficient to provide a *prima facie* case of obviousness of the instant claims because, for the reasons set forth below, Araki does not provide a *prima facie* case of obviousness of the instant claims.

Claim 1 of the application is drawn toward a copolymer prepared by copolymerization of: a first monomer having the structure of formula (I)



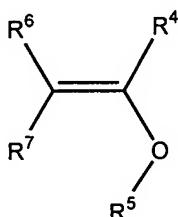
wherein

R<sup>1</sup> is H, F, CN, CH<sub>3</sub>, or C<sub>1-6</sub> fluoroalkyl,

R<sup>2a</sup> and R<sup>2b</sup> are independently H or F, and

R<sup>3</sup> is CN or COOR, wherein R is selected from the group consisting of H, C<sub>1-12</sub> alkyl and C<sub>1-12</sub> fluoroalkyl, or is selected so as to render R<sup>3</sup> acid-cleavable; and  
a second monomer having the structure of formula (II)

(II)



wherein

R<sup>4</sup> is H, C<sub>1-12</sub> alkyl, C<sub>3-15</sub> alicyclic, or fluorinated C<sub>3-15</sub> alicyclic,

R<sup>5</sup> is C<sub>1-12</sub> alkyl, C<sub>1-12</sub> alkyl substituted with 1-12 fluorine atoms and 0-2 hydroxyl groups, or C<sub>3-15</sub> alicyclic, or R<sup>4</sup> and R<sup>5</sup> together form a five-, six-, or seven-membered ring,

R<sup>6</sup> is H, C<sub>1-12</sub> alkyl, or C<sub>1-12</sub> fluoroalkyl, or R<sup>4</sup> and R<sup>6</sup> together form a five-, six-, or seven-membered ring, and

R<sup>7</sup> is H, C<sub>1-12</sub> alkyl, or C<sub>1-12</sub> fluoroalkyl, or R<sup>7</sup> and R<sup>5</sup> together represent -X-(CR<sup>8</sup>R<sup>9</sup>)<sub>n</sub>-, in which case R<sup>4</sup> and R<sup>6</sup> are H, X is O or CH<sub>2</sub>, n is 1 or 2, R<sup>8</sup> and R<sup>9</sup> are H, C<sub>1-12</sub> alkyl, or C<sub>1-12</sub> fluoroalkyl, or together form an oxo moiety (=O), with the proviso that when R<sup>8</sup> and R<sup>9</sup> together form =O, n is 1,

wherein: (1) any of R<sup>1</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, and R<sup>7</sup> may be further substituted with an inert, nonhydrogen substituent; (2) when R<sup>5</sup> is C<sub>1-12</sub> alkyl, at least one of R<sup>4</sup>, R<sup>6</sup> and R<sup>7</sup> is other than hydrogen; and (3) at least one of the first monomer and the second monomer contains one or more fluorine atoms.

The Examiner cites Araki as disclosing a fluorine-containing polymer for use as a chemically amplified photoresist and having, for example, the structure: M1-M2-M3-N. M1 is allegedly similar to the instant monomer (II), M3 is allegedly similar to the instant monomer I, M2 is an alicyclic monomer, and N is selected from monomers such as ethylene, vinyl ether, and others described in the reference.

The MPEP (§2142) lists three criteria, all of which must be met in order for there to be a *prima facie* case of obviousness:

“First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

In order for there to be a *prima facie* case of obviousness, therefore, the Examiner must show that one of ordinary skill in the art would have found motivation to make *specific modifications* to the teachings of Araki in order to arrive at the claimed invention. This showing is absent in the Action, as the Examiner simply states that it would have been obvious to one of ordinary skill to prepare the material of Araki. The Examiner has failed to indicate how one of ordinary skill would have modified the materials of Araki, nor has the Examiner indicated any motivation for modifying the teachings of Araki (e.g., by combining Araki with another reference or by some suggestion within Araki itself). If no modification of Araki is required, then the rejection should be under 35 U.S.C. §102, rather than under 35 U.S.C. §103(a). However, as described in the next paragraph, the teachings of Araki differ markedly from the teachings of the instant application. One of ordinary skill would thus be required to modify the teachings of Araki in order to arrive at the claimed invention, and since no such motivation is present or indicated, the rejection is improper.

The unit M3 of Araki, which is allegedly similar to the instant monomer I, is described in Araki as “a structural unit derived from a fluorine-containing ethylenic monomer and may be a structural unit... having a functional group Z<sup>1</sup> excluding the functional group contained in the structural unit M1. For example, *a functional group which is not degraded by an acid is preferred*” (col. 157, lines 30-34, emphasis added). In fact, Araki specifically teaches an acid cleavable group on M1 (allegedly similar to monomer II - see below), rather than on M3. In contrast, the instant application allows R<sup>3</sup> to be chosen such that an acid cleavable group is located on monomer I. Clearly, the teachings of Araki directly teach away from such a feature, and one of ordinary skill in the art would not be motivated by Araki to prepare the copolymers of the instant claims.

In summary, Araki discloses a very large number of monomers and monomer combinations in a specification that is over 200 columns in length. However, the disclosure of Araki does not provide sufficient guidance for one of ordinary skill in the art to modify the compounds in such a way as to arrive at the instant invention. *See In re Baird*, 16 F.3d 380 (Fed. Cir. 1994) (generic disclosure of a large class of compounds does not render a particular compound within that disclosure obvious). Indeed, the extreme length and detail of the disclosure of Araki would discourage one of ordinary skill from attempting to modify the teachings therein. Rather, one of ordinary skill is led to believe that Araki attempted and reported any reasonable modification of the invention. However, the monomer unit M3 differs from instant monomer I, as described above, and the Examiner has not provided motivation for one of ordinary skill to modify M3 as would be required to arrive at the instant invention. Such motivation is, indeed, not present in Araki. Accordingly, since the Examiner has failed to provide a *prima facie* case of obviousness, and since the claimed invention is not rendered obvious by the teachings of Araki, applicant respectfully requests withdrawal of the rejection.

### CONCLUSION

Applicant respectfully submits that the claims of the application are in condition for allowance. Applicant requests withdrawal of the rejection, and prompt issuance of a notice of allowance. Should there be any questions concerning this communication, a telephone call to the undersigned at 650-251-7724 would be welcomed.

Respectfully submitted,

By:

  
\_\_\_\_\_  
Isaac M. Rutenberg  
Registration No. 57,419  
c/o MINTZ LEVIN  
1400 Page Mill Road  
Palo Alto, California 94304-1124  
(650) 251-7700 Telephone  
(650) 251-7739 Facsimile